

## Nessler's Reagent Alert

Nessler's Reagent is used by companies and treatment facilities that are testing for ammonia in water samples. "Nesslerization has been dropped as a standard method, although it has been considered a classic water quality measurement for more than a century. The use of mercury in this test warrants its deletion because of the disposal problem." (20<sup>th</sup> edition of *Standard Methods*, 1998)

In addition to the presence of mercury and the problems it poses in the environment, consider the toxicity to humans as written on the MSDS: "Toxic if swallowed, inhaled or absorbed through the skin. May act as a carcinogen. May be a reproductive hazard. Corrosive—causes burns."

There are other acceptable methods that eliminate the use of this reagent. The accepted EPA methods are titration, electrode, automated phenate or automated electrode. By using one of the accepted EPA methods, a facility can eliminate a mercury waste stream. If you are using Nessler's Reagent, you need to manage it as a Resource Conservation and Recovery Act (RCRA) hazardous waste. Please refer to the following link for more information on the proper handling of mercury containing products: [www.des.nh.gov/nhppp/Mercury/](http://www.des.nh.gov/nhppp/Mercury/).



**Definition of Nessler's Reagent:** solution of potassium hydroxide, **mercuric** iodide, and potassium iodide; it yields a yellow color with ammonia (a brown precipitate with larger amounts) that can be used for quantitative assay.



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# Wait Until Fall for the 2004 Governor's Award for Pollution Prevention!

*P2 Conference to be Held in September*

Typically awarded in April, the Governor's Award for Pollution Prevention will be presented in September at the Twelfth Annual Pollution Prevention Conference during Pollution Prevention Week. NHPPP recognizes and rewards businesses and organizations that have successfully reduced or eliminated waste at their source.

If your business or organization has been working to eliminate a waste, reduce water usage, conserve energy, or has created an environmental management system or become ISO 14001 certified, NHPPP invites you to apply for the Award. All Award winners must be in good standing with state and federal environmental regulations. Award recipients must

also agree to allow a summary of their accomplishments to be published by NHPPP.

Visit [www.des.state.nh.us/nhPPP/GovAward/GovAward2002.doc](http://www.des.state.nh.us/nhPPP/GovAward/GovAward2002.doc) for information concerning applications, past award winners and frequently asked questions. Contact April Arroyo at (603) 271-0878 or email [NHPPP@des.state.nh.us](mailto:NHPPP@des.state.nh.us) for more information on this program.

**This year's P2 Conference will be held  
Tuesday, September 21  
Holloway Commons  
UNH  
75 Main Street  
Durham, NH 03824**

## Take a minute to respond to our *Wastelines* survey!

We continually strive to get the most up-to-date pollution prevention information and techniques to your business in the best way possible! In the interest of pollution prevention, we are trying to practice source reduction. Your response to our survey will help us to practice what we preach. Please tell us:



- *Would you prefer to receive Wastelines by email?*
- *If you are currently receiving a hardcopy, do you share it with other possible subscribers?*

We look forward to hearing from you!

E-mail responses to [NHPPP@des.state.nh.us](mailto:NHPPP@des.state.nh.us) or fax it to (603) 271-0869. Results will be printed in upcoming issues of *Wastelines*.

# Keep the salt off your car, and out of our watersheds!

**W**ater used in washing cars, trucks, and other vehicles may contain a wide range of contaminants — especially oil, other hydrocarbons, metals, detergents, road salt, and grit. Discharged into surface waters, these contaminants can degrade water quality and harm aquatic life. Discharged into groundwater, they can make it unfit for drinking. The untreated wash water also harms plants and animals that live in streams, rivers, and lakes. To avoid these problems, the following guidelines apply to facilities where vehicles are washed on a regular basis and the wash water is collected by a conveyance such as a drain, catch basin, ditch, or swale. Owners of vehicle washing facilities have four options for their wastewater discharges:

1. Operate a closed system with wastewater recycling (no discharge of wastewater).
2. Discharge to a municipal sanitary sewer.
3. Obtain a groundwater discharge permit.
4. Wash fewer than 30 vehicles per week and discharge to the ground *surface*.

If you must wash your car yourself, the following is a list of guidelines to follow.

- Wash the exterior of the vehicle only. Engine, undercarriage, and transmission washing is prohibited, due to the discharge of a regulated contaminant (petroleum). Env-Ws 1500
- Use regular low-pressure garden hoses. Nozzles should be attached to all hoses



*Using commercial car wash facilities can reduce storm water impacts caused by car washing because such facilities must treat their wash water discharges before release.*

with automatic shut-offs used to conserve water.

- Use non-toxic, biodegradable, and phosphate-free cleaners. Soaps and detergents should be used sparingly.

In the spirit of pollution preven-

tion, ask yourself: Do I really need to wash my car as often as I do? Could I just rinse it off with water, and leave out the soap? For best management practices, and general information, visit: [www.des.nh.gov/factsheets/ws/ws-22-10.htm](http://www.des.nh.gov/factsheets/ws/ws-22-10.htm), [http://cfpub.epa.gov/npdes/stormwater/menuofbmps/poll\\_18.cfm](http://cfpub.epa.gov/npdes/stormwater/menuofbmps/poll_18.cfm).

You can also contact Mitchell Locker, of the Department of Environmental Services at (603) 271-2858 or [mlocker@des.state.nh.us](mailto:mlocker@des.state.nh.us) with further questions.

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[www.des.nh.gov/nhppp](http://www.des.nh.gov/nhppp)

The New Hampshire Pollution Prevention Program is a free, confidential, non-regulatory, technical and compliance assistance program for New Hampshire businesses, municipalities and others. The NHPPP maintains an information clearinghouse, conducts on-site pollution prevention opportunity assessments, provides pollution prevention planning assistance, and organizes conferences and workshops.



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## NHPPP Answers Your Environmental Questions

**Q** : *Our facility purchased a fluorescent lamp crusher due to our limited storage at the facility. Does a crusher necessitate a permit?*

**A** : In New Hampshire, you are required to obtain a Hazardous Waste Permit to use a fluorescent lamp crusher. However, *if you are currently using a lamp crusher, you must discontinue using it immediately.* Fluorescent lamps contain toxic mercury and there are environmental, health, and worker safety hazards that can occur as a result of air emissions from these crushers.

Crushing fluorescent lamps can cause the crusher operator to be exposed to mercury vapor if the crushing is not done properly, or if the crusher is not performing properly or is poorly designed. Lamp crushing may also release enough mercury to contaminate a building in which the crushing is conducted, particularly if

air from the crushing room is re-circulated through the whole building via a central air handling system.

The U.S. Environmental Protection Agency (EPA) plans to issue a study in the coming year reviewing a number of lamp crushers and whether they control mercury emissions as effectively as the manufacturer claims. The N.H. Department of Environmental Services will use EPA guidance developed as a result of this study to formulate a state policy on lamp crushers.

Contact Wendy Bonner at (603) 271-2937 or [wbonner@des.state.nh.us](mailto:wbonner@des.state.nh.us) for information on obtaining a Hazardous Waste Permit and the criteria that a crusher would need to meet for a permit to be issued.

For a current list of vendors and recycling information visit [www.des.nh.gov/nhPPP/uw/lamps.htm](http://www.des.nh.gov/nhPPP/uw/lamps.htm) or [www.des.nh.gov/swtas/](http://www.des.nh.gov/swtas/)

## Please Join Us in Welcoming the Waste Management Division's New Director, Tony Giunta!

**T**ony is a graduate of Boston College with a bachelor's of science degree in physics and a master's of science degree in geophysics. He is also a licensed professional geologist. Tony has been with the Department of Environmental Services for 12 years and has a diverse background, having served in the Waste Management Division Solid Waste, Petroleum Remediation, and Hazardous Waste Pre-Remedial programs. Prior to his hiring at DES, Tony was a research geophysicist with Exxon Production Research Company in Houston, Texas; a project manager for several environmental engineering firms; and founder of his own geotechnical and environmental consulting company during the early 1990s. Besides working for DES, Tony also has an active civic schedule. He served on the Franklin School Board and is currently completing his second term as Mayor of the City of Franklin. Welcome, Tony!





# What kind of consumer are you?

Consumers in recent years have changed buying habit trends. People used to buy new items to replace broken and worn out equipment. With an increase in the amount of affordable technology on the market, consumers are replacing their old equipment just to upgrade. The old equipment, even though it is still in working condition, ends up at a transfer station. These new buying trends are the subject of many new studies.

- In the next ten years, it is estimated that 1.5 million computers will inundate the New Hampshire waste infrastructure.
- In a 1995 study, it was also estimated that cathode ray tubes (CRTs) contribute 28 percent of the lead found in the entire municipal waste stream.
- Approximately 95 percent of discarded computers are headed for disposal in landfills and incinerators.
- The television industry is bracing for a change to digital broadcasts, scheduled to happen after 2006, which means existing televisions will need to be replaced or upgraded.

We can use our old cell phones as emergency back-ups in our car's glove compartments or try to update



old computer parts with newer compatible ones. Do you really need a “new” one

now? What are your reasons for buying new equipment?

**Think Pollution Prevention!** For more information on this subject, visit [www.IAer.org](http://www.IAer.org) or [www.des.nh.gov/SWTAS/recycle\\_electronics.htm](http://www.des.nh.gov/SWTAS/recycle_electronics.htm), which lists links to other sites where you can send your used electronics to be resold. You can also contact Christopher Way, of the Department of Environmental Services, for more information at (603) 271-6847 or [cway@des.state.nh.us](mailto:cway@des.state.nh.us).

## P2 Internship Program

Are you looking for the perfect temporary employee to hire? One that is already trained to save your company time, money, and resources? Well, look no further! The Internship Program teams up engineering students from the University of New Hampshire with interested companies to work on pollution prevention projects over the summer. The cost of sponsoring a trained engineering intern for a ten-week period beginning in late May is \$5,000, and intern sharing is available. Small companies may be eligible for financial assistance to defray intern costs. Some of the benefits of hiring an intern include:

- *increased profits*
- *reduced regulatory burden*
- *prevented waste and pollution*
- *improved worker safety*

For information on past intern projects and an intern request form, call Dr. Ihab Farag at (603) 862-2313 or visit the UNH website at [www.unh.edu/p2/nhppp/previntern.html](http://www.unh.edu/p2/nhppp/previntern.html).



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## What's New on the NHPPP Website?

### Universal Wastes

"Universal wastes" are a special group of hazardous wastes that are generated by all segments of the population and, unfortunately, often improperly disposed by the people who generate them. In an effort to make it easier and more cost effective to properly manage these wastes, the "Universal Waste Rules" exempts the wastes from the more burdensome Hazardous Waste Rules requirements, as long as they are managed to prevent release to the environment and properly recycled or disposed. For example, the Universal Waste Rules do not require generators to provide separate waste storage areas, nor do they require a hazardous waste hauler for transportation.

New Hampshire universal wastes are: cathode ray tubes (CRTs), fluorescent lamps, mercury containing devices (thermostats, ther-

mometers, etc.), automotive antifreeze, batteries, and recalled or unregistered pesticides.

For more information about universal wastes and a more in-depth look at each of the universal wastes, visit our website [www.des.nh.gov/nhPPP/uw/](http://www.des.nh.gov/nhPPP/uw/).

### Biennial Report to the Legislature

P2 helps companies improve their bottom lines by eliminating waste and wasteful practices and encouraging a more efficient use of raw materials and resources, including water and energy. P2 protects the environment by reducing or eliminating hazardous waste generation, toxic water discharges and hazardous air emissions. One of the best ways for businesses to explore their pollution prevention options is to contact NHPPP.

To view a copy of NHPPP's Biennial Report to the Legislature, visit [www.des.nh.gov/nhPPP/leg\\_report\\_02.pdf](http://www.des.nh.gov/nhPPP/leg_report_02.pdf).